

## WHAT IS CLAIMED IS:

1. An isolated or recombinant polynucleotide encoding an antigenic polypeptide comprising at least 17 contiguous amino acids from the mature polypeptide from SEQ ID NO: 2 or 4.
2. The polynucleotide of Claim 1, encoding a mature polypeptide from SEQ ID NO: 2 or 4.
3. The polynucleotide of Claim 1, which hybridizes at 55° C, less than 500 mM salt, and 50% formamide to the coding portions of SEQ ID NO: 1 or 3.
4. The polynucleotide of Claim 3, comprising at least 35 contiguous nucleotides of the coding portion of SEQ ID NO: 1 or 3.
5. An expression vector comprising the polynucleotide of Claim 1.
6. A host cell containing the expression vector of Claim 5, including a eukaryotic cell.
7. A method of making an antigenic polypeptide comprising expressing a recombinant polynucleotide of Claim 1.
8. A method for forming a duplex with a polynucleotide of Claim 1, comprising contacting said polynucleotide with a probe that hybridizes, under stringent conditions, to at least 25 contiguous nucleotides of the coding portion of SEQ ID NO: 1 or 3; thereby forming said duplex.

9. A kit for the detection of a polynucleotide of Claim 1, comprising a polynucleotide that hybridizes, under stringent hybridization conditions, to at least 17 contiguous nucleotides of a polynucleotide of Claim 1.

5 10. The kit of claim 9, wherein said probe is detectably labeled.

11. A binding compound comprising an antibody binding site which specifically binds to at least 17 contiguous amino acids from SEQ ID NO: 2 or 4.

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12. The binding compound of Claim 11, wherein:

a) said antibody binding site is:

1) specifically immunoreactive with a polypeptide of SEQ ID NO: 2 or 4;

15 2) raised against a purified or recombinantly produced human IL-B50 protein; or

3) in a monoclonal antibody, Fab, or F(ab)2; or

b) said binding compound is:

1) an antibody molecule;

20 2) a polyclonal antiserum;

3) detectably labeled;

4) sterile; or

5) in a buffered composition.

25 13. A method using the binding compound of Claim 11, comprising contacting said binding compound with a biological sample comprising an antigen, wherein said contacting results in formation of a binding compound:antigen complex.

30 14. The method of Claim 13, wherein said biological sample is from a human, and wherein said binding compound is an antibody.

15. A detection kit comprising said binding compound of Claim 12, and:

5           a) instructional material for the use of said binding compound for said detection; or

          b) a compartment providing segregation of said binding compound.

16. A substantially pure or isolated antigenic polypeptide, which binds to said binding composition of Claim 11, and further comprises at 10 least 17 contiguous amino acids from SEQ ID NO: 2 or 4.

17. The polypeptide of Claim 16, which:

15           a) comprises at least a fragment of at least 25 contiguous amino acid residues from a primate IL-B50 protein;

          b) is a soluble polypeptide;

          c) is detectably labeled;

          d) is in a sterile composition;

          e) is in a buffered composition;

          f) binds to a cell surface receptor;

20           g) is recombinantly produced; or

          h) has a naturally occurring polypeptide sequence.

18. The polypeptide of Claim 17, which comprises at least 17 contiguous amino acids of SEQ ID NO: 2 or 4.

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19. A method of modulating physiology or development of a cell or tissue culture cells comprising contacting said cell with an agonist or antagonist of a primate IL-B50.

20. The method of Claim 19, wherein:

- a) said contacting is in combination with an agonist or antagonist of IL-7; or
- b) said contacting is with an antagonist, including binding composition comprising an antibody binding site which specifically binds an IL-B50.